## APPENDIX D

Summary Tables V.A.1 through V.A.8. See text for details.

**Table V.A.1.** Summary of the percentage of systems with detections (>MRL) and exceedances (>MCL\*) of selected contaminants, comparing ground-water supplied, community-water systems and non-transient, non-community water systems in Michigan.

G	CV	VSs	NTNCWSs		
Contaminant	Percent > MRL	Percent > MCL*	Percent > MRL	Percent > MCL*	
SOCs					
2,4-D	0.0%	0.0%	0.0%	0.0%	
Atrazine	0.3%	0.1%	0.4%	0.0%	
Benzo[a]pyrene	0.0%	0.0%	0.0%	0.0%	
Carbofuran (Furadan)	0.0%	0.0%	0.0%	0.0%	
Ethylene Dibromide (EDB)	0.0%	0.0%			
Glyphosate (Roundup)	0.0%	0.0%	0.0%	0.0%	
Simazine	0.3%	0.0%	0.1%	0.0%	
VOCs					
Benzene	0.9%	0.2%	0.9%	0.3%	
Styrene	8.1%	0.0%	1.5%	0.0%	
Tetrachloroethylene	1.8%	0.2%	0.6%	0.1%	
Vinyl Chloride	0.2%	0.0%	0.0%	0.0%	
Xylenes (Total)	1.8%	0.1%	1.6%	0.0%	

<sup>\* % &</sup>gt; MCL indicates the proportion of systems with any analytical results exceeding the concentration value of the MCL; it does not necessarily indicate an MCL violation. An MCL violation occurs when the MCL is exceeded by the average results from four quarterly samples or confirmation samples as required by the primacy State.

**Table V.A.2.** Summary of the percentage of systems with detections (>MRL) of selected contaminants, comparing ground-water and surface-water supplied systems, by size of system (population served categories), for a high-occurrence state.

Contaminant	Population Served						
Contaminant	< 500	500-3,300	3,301-10,000	10,001-50,000	> 50,000		
Surface Water (% > MRL)							
IOCs							
Barium	100.0%	100.0%	100.0%	100.0%	100.0%		
Cadmium	20.0%	0.0%	0.0%	0.0%	0.0%		
Mercury	0.0%	3.2%	0.0%	0.0%	0.0%		
SOCs							
2,4-D	44.4%	65.8%	53.8%	29.6%	44.4%		
Atrazine	100.0%	100.0%	96.2%	96.3%	55.6%		
Benzo[a]pyrene	0.0%	0.0%	0.0%	0.0%	11.1%		
Carbofuran (Furadan)	0.0%	5.3%	0.0%	0.0%	0.0%		
Ethylene Dibromide (EDB)	0.0%	2.6%	20.0%	10.7%	9.1%		
Glyphosate (Roundup)	0.0%	0.0%	0.0%	0.0%	0.0%		
VOCs							
Benzene	0.0%	5.1%	33.3%	17.9%	27.3%		
Styrene	0.0%	2.6%	26.7%	17.9%	27.3%		
Tetrachloroethylene	0.0%	2.6%	30.0%	25.0%	18.2%		
Vinyl Chloride	0.0%	2.6%	23.3%	17.9%	27.3%		
Xylenes (Total)	22.2%	17.9%	43.3%	32.1%	27.3%		
Ground Water (% > MRL)				1			
IOCs							
Barium	98.2%	98.6%	95.2%	90.9%	100.0%		
Cadmium	0.0%	4.2%	0.0%	0.0%	0.0%		
Mercury	0.0%	1.9%	0.0%	0.0%	0.0%		
SOCs							
2,4-D	1.3%	5.3%	6.0%	6.4%	33.3%		
Atrazine	2.5%	11.3%	12.0%	21.3%	33.3%		
Benzo[a]pyrene	0.6%	0.0%	0.0%	0.0%	33.3%		
Carbofuran (Furadan)	0.2%	0.0%	0.0%	0.0%	0.0%		
Ethylene Dibromide (EDB)	0.6%	0.9%	3.8%	5.8%	33.3%		
Glyphosate (Roundup)	0.0%	0.0%	0.0%	0.0%	0.0%		
VOCs							
Benzene	1.6%	4.1%	13.3%	15.4%	66.7%		
Styrene	3.3%	4.4%	10.5%	3.8%	66.7%		
Tetrachloroethylene	2.2%	5.1%	16.2%	25.0%	100.0%		
Vinyl Chloride	1.6%	2.1%	11.4%	7.7%	66.7%		
Xylenes (Total)	11.1%	18.4%	19.4%	32.7%	66.7%		

**Table V.A.3.** Summary of the percentage of systems with exceedances (>MCL\*) of selected contaminants, comparing ground-water and surface-water supplied systems, by size of system (population served categories), for a high-occurrence state.

Garata and and	Population Served						
Contaminant	< 500	500-3,300	3,301-10,000	10,001-50,000	> 50,000		
Surface Water (% > MCL*)							
IOCs							
Barium	0.0%	0.0%	0.0%	0.0%	25.0%		
Cadmium	0.0%	0.0%	0.0%	0.0%	0.0%		
Mercury	0.0%	0.0%	0.0%	0.0%	0.0%		
SOCs							
2,4-D	0.0%	0.0%	0.0%	0.0%	0.0%		
Atrazine	77.8%	71.1%	57.7%	18.5%	22.2%		
Benzo[a]pyrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Carbofuran (Furadan)	0.0%	0.0%	0.0%	0.0%	0.0%		
Ethylene Dibromide (EDB)	0.0%	0.0%	20.0%	10.7%	9.1%		
Glyphosate (Roundup)	0.0%	0.0%	0.0%	0.0%	0.0%		
VOCs							
Benzene	0.0%	2.6%	0.0%	0.0%	0.0%		
Styrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Tetrachloroethylene	0.0%	0.0%	0.0%	0.0%	0.0%		
Vinyl Chloride	0.0%	0.0%	0.0%	0.0%	0.0%		
Xylenes (Total)	0.0%	0.0%	0.0%	0.0%	0.0%		
Ground Water (% > MCL*)							
IOCs	0.00/	2.90/	4.90/	19.20/	0.00/		
Barium	0.0%	2.8%	4.8%	18.2%	0.0%		
Cadmium	0.0%	1.4%	0.0%	0.0%	0.0%		
Mercury	0.0%	1.9%	0.0%	0.0%	0.0%		
SOCs	0.00/	0.00/	0.00/	0.00/	0.00/		
2,4-D	0.0%	0.0%	0.0%	0.0%	0.0%		
Atrazine	0.0%	1.1%	0.0%	0.0%	33.3%		
Benzo[a]pyrene	0.0%	0.0%	0.0%	0.0%	33.3%		
Carbofuran (Furadan)	0.0%	0.0%	0.0%	0.0%	0.0%		
Ethylene Dibromide (EDB)	0.0%	0.9%	2.9%	1.9%	33.3%		
Glyphosate (Roundup)	0.0%	0.0%	0.0%	0.0%	0.0%		
VOCs							
Benzene	0.1%	0.5%	1.0%	0.0%	0.0%		
Styrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Tetrachloroethylene	0.4%	0.7%	0.0%	3.8%	33.3%		
Vinyl Chloride	0.0%	0.2%	1.9%	0.0%	0.0%		
Xylenes (Total)	0.0%	0.0%	0.0%	0.0%	0.0%		

<sup>\* % &</sup>gt; MCL indicates the proportion of systems with any analytical results exceeding the concentration value of the MCL; it does not necessarily indicate an MCL violation. An MCL violation occurs when the MCL is exceeded by the average results from four quarterly samples or confirmation samples as required by the primacy State.

**Table V.A.4.** Summary of the percentage of systems with detections (>MRL) of selected contaminants, comparing ground-water and surface-water supplied systems, by size of system (population served categories), for a low-occurrence state.

	Population Served						
Contaminant	< 500	500-3,300	3,301-10,000	10,001-50,000	> 50,000		
Surface Water (% > MRL)				,	·		
IOCs							
Barium	29.6%	33.3%	66.7%	36.4%	50.0%		
Cadmium	5.6%	1.6%	16.7%	4.5%	0.0%		
Mercury	11.3%	17.5%	16.7%	9.1%	25.0%		
SOCs							
2,4-D	0.0%	3.3%	0.0%	0.0%	0.0%		
Atrazine	0.0%	0.0%	0.0%	0.0%	0.0%		
Benzo[a]pyrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Carbofuran (Furadan)	0.0%	0.0%	0.0%	4.8%	25.0%		
Ethylene Dibromide (EDB)	0.0%	0.0%	0.0%	4.8%	0.0%		
Glyphosate (Roundup)	0.0%	0.0%	0.0%	0.0%	0.0%		
VOCs							
Benzene	0.0%	1.6%	0.0%	0.0%	0.0%		
Styrene	0.0%	0.0%	5.6%	0.0%	0.0%		
Tetrachloroethylene	4.5%	3.5%	0.0%	0.0%	0.0%		
Vinyl Chloride	0.0%	1.6%	5.6%	0.0%	0.0%		
Xylenes (Total)	2.3%	3.5%	0.0%	0.0%	0.0%		
Ground Water (% > MRL)  IOCs							
Barium	29.3%	45.8%	36.4%	64.7%	33.3%		
Cadmium	5.4%	6.7%	4.5%	29.4%	0.0%		
Mercury	6.7%	9.2%	9.1%	23.5%	33.3%		
SOCs		- 1-1					
2,4-D	0.3%	0.0%	0.0%	0.0%	0.0%		
Atrazine	0.0%	0.0%	0.0%	0.0%	0.0%		
Benzo[a]pyrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Carbofuran (Furadan)	0.0%	0.0%	0.0%	0.0%	0.0%		
Ethylene Dibromide (EDB)	0.9%	0.0%	0.0%	6.3%	0.0%		
Glyphosate (Roundup)	0.0%	0.0%	0.0%	0.0%	0.0%		
VOCs							
Benzene	0.2%	0.8%	4.5%	5.6%	0.0%		
Styrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Tetrachloroethylene	6.5%	10.3%	0.0%	0.0%	33.3%		
Vinyl Chloride	0.0%	0.0%	0.0%	0.0%	0.0%		
Xylenes (Total)	1.5%	3.9%	0.0%	0.0%	0.0%		

**Table V.A.5.** Summary of the percentage of systems with exceedances (>MCL\*) of selected contaminants, comparing ground-water and surface-water supplied systems, by size of system (population served categories), for a low-occurrence state.

Contominant	Population Served						
Contaminant	< 500	500-3,300	3,301-10,000	10,001-50,000	> 50,000		
Surface Water (% > MCL*)							
IOCs							
Barium	0.0%	1.6%	0.0%	0.0%	0.0%		
Cadmium	0.0%	0.0%	0.0%	0.0%	0.0%		
Mercury	0.0%	3.2%	0.0%	0.0%	0.0%		
SOCs							
2,4-D	0.0%	0.0%	0.0%	0.0%	0.0%		
Atrazine	0.0%	0.0%	0.0%	0.0%	0.0%		
Benzo[a]pyrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Carbofuran (Furadan)	0.0%	0.0%	0.0%	0.0%	0.0%		
Ethylene Dibromide (EDB)	0.0%	0.0%	0.0%	0.0%	0.0%		
Glyphosate (Roundup)	0.0%	0.0%	0.0%	0.0%	0.0%		
VOCs							
Benzene	0.0%	0.0%	0.0%	0.0%	0.0%		
Styrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Tetrachloroethylene	2.3%	0.0%	0.0%	0.0%	0.0%		
Vinyl Chloride	0.0%	0.0%	0.0%	0.0%	0.0%		
Xylenes (Total)	0.0%	0.0%	0.0%	0.0%	0.0%		
Ground Water (% > MCL*)		1		1			
IOCs							
Barium	0.1%	0.0%	0.0%	0.0%	0.0%		
Cadmium	0.3%	1.7%	0.0%	0.0%	0.0%		
Mercury	0.1%	0.0%	0.0%	0.0%	0.0%		
SOCs							
2,4-D	0.0%	0.0%	0.0%	0.0%	0.0%		
Atrazine	0.0%	0.0%	0.0%	0.0%	0.0%		
Benzo[a]pyrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Carbofuran (Furadan)	0.0%	0.0%	0.0%	0.0%	0.0%		
Ethylene Dibromide (EDB)	0.3%	0.0%	0.0%	0.0%	0.0%		
Glyphosate (Roundup)	0.0%	0.0%	0.0%	0.0%	0.0%		
VOCs							
Benzene	0.1%	0.0%	0.0%	0.0%	0.0%		
Styrene	0.0%	0.0%	0.0%	0.0%	0.0%		
Tetrachloroethylene	1.8%	0.0%	0.0%	0.0%	0.0%		
Vinyl Chloride	0.0%	0.0%	0.0%	0.0%	0.0%		
Xylenes (Total)	0.0%	0.0%	0.0%	0.0%	0.0%		

<sup>\* % &</sup>gt; MCL indicates the proportion of systems with any analytical results exceeding the concentration value of the MCL; it does not necessarily indicate an MCL violation. An MCL violation occurs when the MCL is exceeded by the average results from four quarterly samples or confirmation samples as required by the primacy State.

**Table V.A.6.** Summary of the percentage of systems with detections (>MRL) of selected contaminants, comparing ground-water and surface-water supplied systems, by size of system (population served categories), from the national URCIS database.

G	Population Served						
Contaminant	< 500	500-3,300	3,301-10,000	10,001-50,000	> 50,000		
Surface Water (% > MRL)							
SOCs							
Dibromochloropropane (DBCP)	1.5%	1.7%	1.1%	3.3%	10.7%		
Ethylene Dibromide (EDB)	3.9%	0.3%	1.3%	3.4%	10.1%		
VOCs							
Methylene Chloride	11.1%	10.3%	14.5%	14.6%	17.1%		
Tetrachloroethylene	1.1%	2.0%	1.3%	5.5%	11.8%		
Toluene	7.7%	6.2%	7.3%	8.2%	13.1%		
Trichloroethylene	0.5%	4.1%	7.2%	12.6%	22.1%		
Vinyl Chloride	1.4%	0.6%	1.2%	2.1%	3.1%		
Xylenes (Total)	15.8%	7.0%	9.8%	11.8%	17.2%		
Ground Water (% > MRL)							
SOCs							
Dibromochloropropane (DBCP)	1.5%	2.5%	4.8%	12.2%	21.9%		
Ethylene Dibromide (EDB)	0.3%	1.1%	3.4%	6.8%	13.3%		
VOCs							
Methylene Chloride	2.7%	3.4%	8.0%	14.0%	24.5%		
Tetrachloroethylene	2.2%	3.8%	9.6%	23.8%	42.8%		
Toluene	2.9%	3.6%	8.2%	10.3%	17.3%		
Trichloroethylene	2.1%	4.0%	10.4%	23.3%	39.4%		
Vinyl Chloride	0.2%	0.5%	0.8%	2.9%	5.5%		
Xylenes (Total)	1.8%	5.0%	7.9%	6.9%	10.2%		

**Table V.A.7.** Summary of the percentage of systems with exceedances (>MCL\*) of selected contaminants, comparing ground-water and surface-water supplied systems, by size of system (population served categories), from the national URCIS database.

G4	Population Served						
Contaminant	< 500	500-3,300	3,301-10,000	10,001-50,000	> 50,000		
Surface Water (% > MCL*)							
SOCs							
Dibromochloropropane (DBCP)	2.5%	0.0%	0.7%	0.3%	3.4%		
Ethylene Dibromide (EDB)	0.5%	0.9%	0.7%	1.6%	5.8%		
VOCs							
Methylene Chloride	4.3%	2.9%	4.1%	3.9%	4.8%		
Tetrachloroethylene	0.0%	0.4%	0.8%	1.2%	3.7%		
Toluene	0.0%	0.0%	0.0%	0.0%	0.0%		
Trichloroethylene	0.0%	0.3%	0.4%	2.0%	8.7%		
Vinyl Chloride	0.0%	0.3%	0.8%	1.3%	2.1%		
Xylenes (Total)	0.0%	0.0%	0.0%	0.0%	0.0%		
Ground Water (% > MCL*)							
SOCs							
Dibromochloropropane (DBCP)	0.9%	1.2%	2.6%	6.2%	8.8%		
Ethylene Dibromide (EDB)	0.2%	0.5%	2.1%	5.6%	6.3%		
VOCs							
Methylene Chloride	0.4%	0.7%	1.7%	2.8%	5.4%		
Tetrachloroethylene	0.4%	1.0%	2.9%	9.2%	23.3%		
Toluene	0.0%	0.0%	0.0%	0.0%	0.0%		
Trichloroethylene	0.4%	1.0%	3.5%	8.4%	22.4%		
Vinyl Chloride	0.1%	0.1%	0.1%	1.4%	3.7%		
Xylenes (Total)	0.0%	0.0%	0.0%	0.0%	0.0%		

<sup>\* % &</sup>gt; MCL indicates the proportion of systems with any analytical results exceeding the concentration value of the MCL; it does not necessarily indicate an MCL violation. An MCL violation occurs when the MCL is exceeded by the average results from four quarterly samples or confirmation samples as required by the primacy State.

**Table V.A.8.** Summary of the percentage of systems with detections (>MRL) of selected unregulated contaminants, comparing ground-water and surface-water supplied systems, by size of system (population served categories), from the national URCIS database.

C	Population Served						
Contaminant	< 500	500-3,300	3,301-10,000	10,001-50,000	> 50,000		
Surface Water (% > MRL)							
VOCs							
(m-) 1,3-Dichlorobenzene	1.7%	0.2%	0.3%	0.8%	2.1%		
1,1,1,2-Tetrachloroethane	0.4%	0.2%	1.3%	0.8%	1.3%		
1,2,3-Trichloropropane	0.4%	0.2%	0.3%	0.3%	0.7%		
Bromomethane	2.0%	0.2%	0.5%	2.1%	3.7%		
Chloromethane	1.7%	2.6%	2.5%	2.4%	5.0%		
o-Chlorotoluene	0.7%	0.4%	0.5%	1.1%	0.0%		
p-Chlorotoluene	0.8%	0.0%	0.3%	0.8%	0.0%		
Ground Water (% > MRL)							
VOCs							
(m-) 1,3-Dichlorobenzene	0.2%	0.1%	0.3%	0.7%	2.2%		
1,1,1,2-Tetrachloroethane	0.0%	0.1%	0.2%	1.5%	4.0%		
1,2,3-Trichloropropane	0.2%	0.1%	0.7%	1.9%	4.4%		
Bromomethane	0.7%	0.6%	0.7%	1.8%	3.3%		
Chloromethane	1.3%	1.6%	3.2%	3.3%	4.9%		
o-Chlorotoluene	0.1%	0.1%	0.5%	0.4%	4.9%		
p-Chlorotoluene	0.1%	0.1%	0.5%	0.9%	3.0%		